

**REMARKS**

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. Support for newly added claim 28 can be found in the published specification in paragraph nos. 186, 190 and 273-375. The applicant authorizes the USPTO to charge for the extra claim added over 20.

Claims 14-20 and 23 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 6 and 10-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0021375-A1 (Hossel et al.). Claims 6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0021375-A1 (Hossel et al.) in view of US 6,191,188 (Hossel et al. '188). The applicant respectfully traverses these rejections.

**Rejections under 35 U.S.C. 112**

Claims 14-20 and 23 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that the ingredient is never required and is optional however, as the Examiner stated the specification has support for the upper limit. Since claims 14-20 and 23 are dependent claims, the applicant now further requiring monomer D (claim 14) and monomer E (claim 15). These claims further limit the independent claim. As defined by the term "optional" the component can be present or absent. If the component is present it can't be present in more than the upper limit. The applicant believes that support for the monomer D and E be present can be found in the term "optional" which by definition means it can be present. The MPEP section 2163.05 "Changes to the Scope of Claims [R-2] – 2100 Patentability" states:

a. III. RANGE LIMITATIONS

With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. In the decision in *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), the ranges described in the original specification included a range of "25%- 60%" and specific examples of "36%" and "50%." A corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the "25% to 60%" range, however a limitation to "between 35% and 60%" did meet the description requirement.

The applicant believes that they are in the situation of *In re Wertheim*. The courts have further stated that for written in *Union Oil Company of California v Atlantic Richfield Company* 208 F.3d. 989, 997; 54 U.S.P.Q. 2d. 1227 (CAFC 2000) held that the written description requirement does not require the applicant "to describe exactly the subject matter claimed [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed". Further, *In re Norman K. Alton et al.*, 76 F.3d. 1168; 37 U.S.P.Q. 2D 1578 (CAFC 1996) the Court also referred to *In re Wertheim*. The Court held,

"If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsius verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient."

The applicant has narrowed the range limitation. The applicant believes that the description is clear to one of ordinary skill in the art. Components d) and e) are optional components since the lower limit is 0. Therefore, components d) and e) can also be present. The upper limit is clearly supported. The specification further supports that components d) and/or E) can be present. It is also noted that in the example 2 that monomer d) and polymer E can be present (see page 36, lines 21-24) which states:

VP-VCap-VI copolymer systems comprising a **further monomer D** (Ex. 2d) **or** polymerized in the **presence of a polymer E** (Ex. 2a) + 2b)) or comprising **further monomer D and polymerized in the presence of a polymer E** (Ex. 2c). (emphasis added)

For the above reasons, this rejection should be withdrawn.

**Rejections under 35 U.S.C. 103(a)**

Claims 6 and 10-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0021375-A1 (Hossel et al.). Claims 6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0021375-A1 (Hossel et al.) in view of US 6,191,188 (Hossel et al. '188).

The applicant believes that the claims are patentable. The applicant further believes that the new claims are clearly patentable since they are narrower than the current independent claim. Furthermore, these claims are clearly commensurate in scope with the unexpected showing for clarity in the examples in the specification (see also newly added claim 28 and tables 1 and 2 in the specification).

Again as previously stated in the applicant's earlier response, the PCT counterpart of Hossel '188 (WO 9831328) is disclosed in the applicant's specification at page 2 starting at line 20. Hossel '188 describes an aqueous composition comprising a copolymer a) based on N-vinylcaprolactam (VCap), N-vinylpyrrolidone (VP) and N-vinylimidazole (VI) and at least one polyoxyethylene C<sub>6</sub>-C<sub>15</sub> monoalkyl ether b).

In the present application cosmetic preparations are disclosed which comprise polymers which comprise certain amounts of monomers A to D and polymer E, wherein components D and E are optional. The different polymers are comparable insofar that polymer a) in is based on monomers A to D of the present application and polymer b) in Hossel '188 is selected from

polymer E of the present application.

One of the problems to be solved by the present application was to provide polymers that give clear hair fixing gels. The polymers of Hossel '188 did not recognize this problem and are not able to solve the problem (see Example 1 a) at page 36 of the specification [(60 % VP (vinyl pyrrolidone), 10 % VI (vinylimidazole) and 30% VCap (vinylcaprolactam)]. The results were considered 4-5 (4 is cloudy and 5 is milky) see page 34 of the specification. Example 1b), at page 36 of the specification, is outside the scope of the applicant's claimed invention and achieved results of 4-5 (cloudy or milky) with VP/VI/VCap (37/3/60). Furthermore, Hossel '188 does not teach how the polymers might be adjusted to solve the problem.

Suitable polymers a) in Hossel '188 comprise (a) from 20 to 80% by weight, preferably from 40 to 60% by weight, of N-vinylcaprolactam, (VCap) (b<sub>1</sub>) from 10 to 60% by weight, preferably from 20 to 50% by weight, of N-vinylpyrrolidone(VP), (c<sub>1</sub>) from **5 to 50% by weight, preferably from 7 to 20% by weight, of N-vinylimidazole** (VI) or quaternized N-vinylimidazole, and optionally (d<sub>1</sub>), and where the monomer (c<sub>1</sub>) employed is a nonquaternized N-vinylimidazole, advantageously by subsequent quaternization of the polymer (see Hossel '188 at col. 2, line 3 to 19). **Component C<sub>1</sub>(VI) is outside the scope of the applicant's claimed invention** (the applicant claims at most 4% compared to at least 5% by Hossel '188). For this reason alone the rejection should be withdrawn.

The next difference is the claimed ratio of monomer C to monomer B. The applicant uses a very low amount of monomer C (VI). Transferred to Hossel '188 it would mean that the amount of monomer C (VI) must be as low as (60% VP/15 (applicant's claimed ratio of claim 1) = **4.0%** by weight or less (1:15 with regard to 60% by weight VP), **3.75% by weight or less** (the ratio 1:16 is presented in claim 12 of the present application) or as low as **2.61 % by weight** or less (1:23 with regard to 60 % by weight VP; the ratio 1:23 is presented in claim 13 of the pre-

sent application). Again Hossel '188 requires a minimum of 5% by weight of monomer C.

This is related to a distance of 20 %  $[(5-4)/5]$  and 48 %  $[(5-2.61)/5]$ , respectively, away from the lower limit of 5 weight % of the amount of VI in Hossel '188. Thus, it cannot be stated that routine optimization would have led the artisan to the present invention. Therefore, the teachings of Hossel '188 would not have allowed the one skilled in the art to choose the very low amounts of VI. In fact, Hossel '188 teaches away from the inventive low amounts of the present application.

Physical and chemical properties of different copolymers of the invention are shown on page 36 in the tables under example 1 and 2 of the International Application. The most convenient copolymer candidates for a hairstyling formulation in table 1 are depicted under g) to 1) providing an almost clear styling gel. No turbidity of gels comprising said copolymer compounds can be detected. Furthermore said copolymers provide a very low tendency to stick together when formulated in a hairstyling composition.

A statement that modifications of the prior art to meet the claimed invention would have been "obvious to one of ordinary skill in the art at the time the invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See MPEP § 2143.01 IV. "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Furthermore, the Examiner cannot selectively pick and choose from the disclosed parameters without proper motivation as to a particular selection. The mere fact that a reference

may be modified to reflect features of the claimed invention does not make the modification, and hence the claimed invention, obvious unless the prior art suggested the desirability of such modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430 (Fed. Cir. 1990); *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible to simply engage in a hindsight reconstruction of the claimed invention where the reference itself provides no teaching as to why the applicant's combination would have been obvious. *In re Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

Assuming arguendo that the Examiner has made a prima facie case of obviousness, the applicant believes the data in the specification rebuts these rejections. Example 2 in the specification provides in table 2 further polymer compositions for styling gels. Examples a) and b) establish a clear appearance and have almost no stickiness when a styling composition of said polymer is applied to the hair.

The applicant believe that the improved performance of copolymers obtained from N-vinylpyrrolidone, N-vinylimidazole and N-vinylcaprolactam can only be achieved, if the claimed ratio of N-vinylpyrrolidone and N-vinylimidazole is met.

According to the examples the ratio of N-vinylpyrrolidone to N-vinylimidazole must be at least 15:1 and one obtains poor results with a weight ratio of only 14.7:1 as shown under example m) in table 1 of the International Application.

The invention further can require the ratio of N-vinylcaprolactam to N-vinylimidazole to be at least 11:1 (cf. a) in the table of example 2). Lower ratios as indicated under a) to e) in the table of example 1 however do not provide clear polymer compositions for hairstyling purposes (see claim 24). With respect to claim 24, this claim is further distinguished from the prior art because both ratios must be met. Both features in combination cannot be gathered from the cited

prior art and the large ranges of each monomer pair disclosed therein should not lead the person of ordinary skill in the art to the combination of the claimed features of claim 24. For the above reasons these rejections should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

A three month extension has been paid. Applicant believes no additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 12810-00039-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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